R E P O R T R E S U M E S

ED 003 524 56

A COMPARATIVE STUDY OF THE EFFECTIVENESS OF THREE TECHNIQUES OF FILM UTILIZATION IN TEACHING A SELECTED GROUP OF EDUCABLE MENTALLY RETARDED CHILDREN ENROLLED IN PUBLIC SCHOOLS IN LOUISIANA.

BY- CARTER, LAMORE J. AND OTHERS
GRAMBLING COLL., LA.

REPORT NUMBER NDEA-VIIA-272 PUB DATE 60
EDRS PRICE MF-$0.18 HC-$3.24 81P.

DESCRIPTORS- *AUDIOVISUAL INSTRUCTION, *EDUCABLE MENTALLY HANDICAPPED, *TEACHING TECHNIQUES, *COMPARATIVE ANALYSIS, *FILMS, PUBLIC SCHOOLS, SPECIAL CLASSES, PROGRAM EVALUATION, GRAMBLING, LOUISIANA

THE RELATIVE EFFECTIVENESS OF THREE AUDIOVISUAL TECHNIQUES WAS STUDIED WITH MENTALLY RETARDED PUBLIC SCHOOL STUDENTS. THE TECHNIQUES ESPECIALLY DESIGNED TO OVERCOME THE TRAITS OF MENTAL RETARDATES, CONSISTED OF (1) CONVENTIONAL FILM NARRATED BY A TEACHER, (2) UNNARRATED FILM WITH RESPONSES FROM CHILDREN ON THE SOUND TRACK, AND (3) SILENT FILM DURING WHICH STUDENTS PROVIDED THEIR OWN UNRESTRAINED COMMENTS. SPECIAL CLASSES OF EDUCABLE MENTALLY RETARDED CHILDREN PROVIDED 104 SUBJECTS. FOUR MATCHED GROUPS WERE ESTABLISHED TO PROVIDE AN EXPERIMENTAL GROUP FOR EACH OF THE FILM TECHNIQUES AND A CONTROL GROUP. DATA WERE GATHERED FROM PRE- AND POST-TESTS AND RECOGNITION TEST SCORES. FINDINGS INDICATED THAT USE OF ANY OF THE EXPERIMENTAL FILM TECHNIQUES WAS NO MORE EFFECTIVE FOR TEACHING EDUCABLE MENTALLY RETARDED CHILDREN THAN TEACHING THE SAME UNIT WITHOUT FILMS. (AL)

ED003524

272

A Comparative Study of The Effectiveness of Three Techniques Of Film Utilization in Teaching a Selected Group of Educable Mentally Retarded Children Enrolled in Public Schools in Louisiana

PRINCIPAL INVESTIGATORS:

DR. LAMORE J. CARTER
PROFESSOR ROY B. MOSS
DR. MAMIE T. WILSON

Grambling College of Louisiana

The research reported herein was supported by a grant from the United States Office of Education, Department of Health, Education and Welfare.

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

A C K N O W L E D G E M E N T S

We wish to express our gratitude for the invaluable advice assistance given us by the following persons:

Dr. Norman D. Bowers, School of Education, University of North Carolina, Chapel Hill, North Carolina, who was design and statistical consultant for the project.

Miss Elizabeth Robinson and Mrs. Dorothy M. Benson of Grambling College, Division of Education, who served as consultants on subject matter and classroom procedure.

Mrs. Jean G. Brown, Grambling College Laboratory School, who served as film teacher and narrator for film.

Mr. Thomas Richardson, Grambling College, Department of Art, who produced special materials for film scenes.

Dr. Arlynne L. Cheers of Grambling College Testing Service and Dr. Calvin O. Atchison of Tennessee A and I State University for consultation and assistance regarding statistics.

Mrs. Ethel Garner and Mrs. Audrey L. Ealy of Grambling College, for proof-reading and typing services.

We are also deeply appreciative of the outstanding cooperative effort of parish and school personnel without which the research project could not have been completed.

L. J. Carter
Roy B. Moss
Mamie T. Wilson

TABLE OF CONTENTS

Chapter		Page
I	Introduction	1
II	Review of Related Research	3
III	Procedure	8
IV	Results and Discussion	13
V	Summary and Conclusions	26
	Appendix A	29
	Appendix B	41
	Appendix C	45
	Appendix D	67
	Bibliography	74

CHAPTER I

INTRODUCTION

That most learning is enhanced by use of audio-visual aids has been demonstrated many, many times. It is a well accepted generality, especially as applied to the learning of children of normal intelligence. The appropriateness of certain audio-visual techniques with children of sub-normal intelligence is, however, a matter not well understood or investigated.

Educable retarded children are an exceptionally varied group (8, 12, 22, 37). The principal source of this variation is learning behavior (22, 25). Cognizance of this has led many investigators to initiate research projects aimed at the discovery of new facts which would add specificity to our general knowledge of mental retardation.

Statement of Problem:

This investigation was designed to provide answers to three problems. The basic problem was that of determining the relative effectiveness of three experimental techniques and one control technique of teaching a three week study unit to a selected group of educable mental retardates enrolled in public schools of Louisiana. A second problem of the investigation was to determine whether retardates with high mental ages differed significantly from retardates with low mental ages in amount learned from the four techniques of unit teaching. A third problem was to determine whether there were significant differences between methods within I. Q. grouping (above or below 65 months in mental age).

As relates to psychological theory of learning, this study was designed to add specificity to general evidence regarding the value of learner "participation" in learning. In this connection "participation" is used to

describe not a single technique of film presentation, but rather a group of techniques, all having certain elements in common. More specifically, the condition for participation necessitates that some kind of overt activity consciously be engaged in by the learner as he is exposed to the communication and that this activity be systematically evoked either by the communication itself or by some other person or device (1).

Justification:

Mentally retarded children differ in general from normal children in their perceptual and conceptual abilities. Coincident with and/or often resultant of these deficits are such differences as greater distractibility, shorter attention span, easy frustration at the slightest challenging task, hyperactivity, little ability for self criticism, difficulty in assimilation and transfer and general slowness in reasoning from causes to effect (12, 25, 37). All of these points of differences are related to the concreteness of learning situations and the richness of learning experiences as sensed by the learner. As these are relative qualities found in both normals and retardates, yet normals are highly predictable as to their profit from certain audio-visual media, it seemed important to try certain new audio-visual techniques especially designed to either exploit or overcome some of the peculiar learning traits of retardates.

CHAPTER II

REVIEW OF RELATED RESEARCH

It is of accepted importance that the school experiences of children be devoid of useless artificiality and verbalism, and that educational experiences be as rich and concrete as possible and/or practical for all children. An abundance of audio-visual media has been developed, tested and found to be of great practical value in providing this richness and concreteness of classroom experiences. However, the greater bulk of research bearing on the use of audio-visual media in teaching has centered upon normal individuals, adults and children in regular classes in the public schools. None of the literature reviewed dealt with film presentations to educable retardates.

Studies reported by Freeman, Shaw and Walker (10), Freeman and Hoefer (11), and Hoefer and Keith (20) are interesting examples of research involving the use of audio-visual media with normal individuals. When, however, consideration is given to the demonstrated and commonly observed differences and similarities (psychological, sociological and physical) between individuals of normal and subnormal intelligence as relate to their tendency to profit from learning experiences, one should probably expect even more provocative results from similar research and experimentation with mental retardates. General conclusions by Hoban (18), Arnspiger (2), Consitt (7), Davis (9), Knowlton and Tilton (26), Wittich and Fowlkes (39), and others give general support to this idea. Hoban (19), for example, indicated that the difference between the responses of "dull" and "bright" pupils to film was a difference of degree, not kind. Several of the other studies just mentioned, though not specifically concerned with mental retardates, point up the relevant evidenced that the effectiveness of film

with children of a given level of intelligence must be expected to vary with the subject taught and with the learning outcomes measured (2, 3, 7, 26, 39).

Added relevant implications for further research involving retardates would seem to come from the general conclusions resulting from a variety of studies which investigated the effectiveness of several techniques of film presentation in teaching normal children and adults (13, 16, 21, 24, 31, 35, 40). Two of these studies, in particular, seem to point to the general conclusion that, (1) the more pupil "participation" during the presentation of instructional film the greater will be the learning and retention (40), and (2) the less the motivation and intelligence of the individual viewing the film, the greater profit from "participation" in the film presentation (20).

In the Yale Study (40), 150 high school pupils were used in a project designed to investigate the effects upon these pupils of "motivation" and "participation" questions inserted into a film on the heart circulatory system. Five methods of presentation were used: (a) factual presentation of the film without questions, shown once; (b) the factual version plus "motivation" questions in the form of printed titles preceding each unit of material in the film; (c) the factual version plus "participation" questions to be answered by the pupils on a work-sheet after each unit, the correct answers then being presented on the screen; (d) the factual version supplemented by a combination of "motivation" and "participation" questions; and (e) the factual version, shown twice. There was a pre-test and a re-test of pupils' knowledge of the subject matter taught, using a 40-item multiple choice test. This test was given one week before the film showing and again immediately after. The "participation" questions made a significantly greater contribution than the "motivation" questions to the

effectiveness of the film. The combination of "motivation" and "participation" questions showed an even greater and more statistically significant difference. When the learning from the participation version was compared with that from two showings of the factual version, it was found that 52 percent increase in time required resulted in a 49 percent gain in correct answers, whereas the double showing required a 100 percent increase in required time and netted only 46 percent gain. The greatest gain from including "participation" questions was on the test items directly covered (practiced) by the questions.

Hovland, Lumsdaine and Sheffield (21), working with 742 army recruits, used four conditions of sound filmstrip presentation in teaching Signal Corp phonetic alphabet and pronunciation of numerals. The conditions of film presentation were: (a) a "standard" filmstrip in which review lists of phonetic names with their corresponding letters were pronounced by a narrator; (b) a "participation" filmstrip in which these letters were followed by a question mark, the names to be pronounced by the audience; (c) the announcement of a test preceding the "standard" version; and (d) the same test announcement prior to the "participation" version. Oral tests were administered to a sampling of men to test their ability to recall the phonetic names, and the other men were given written tests. The results may be summarized as follows: (a) The men who had active participation recalled 68 percent of the phonetic names; those who had no participation recalled only 48 percent. The recall time was 2 seconds. The difference in recall was significant at the 1 percent level; (b) The participation version was more effective than the non-participation version, when the learning material was difficult as compared to easy material. The difference between easy and difficult material (phonetic symbols) was reliable 20 percent; (c) Active participation was most effective when recruits were not motivated to learn by the announcement of a test. The difference was 13 percent, significant

at the 4 percent level. However, the announcement of a test produced almost as much learning as the use of participation techniques alone; (d) The participation benefited the less intelligent men, being 16 percent superior. This superiority was reliable at the 5 percent level; (e) Considering the conditions of difficult material, motivation to learn, and learning ability, active participation was most effective with the less intelligent, non-motivated recruits, learning more difficult material. The increase was 23 percent. Conversely, it was least effective with the recruits with the most intelligence learning easier words, regardless of motivation. The increase was 3 percent.

Of the several participation techniques of film usage in teaching that have been investigated, the two which seem to have the greatest relevance to this investigation have been labeled "verbalization of response" and "mental practice" (1). However, these studies did not involve educable mental retardates. Of six comparisons made using verbalization of response as a variable, five were shown to favor participation and one did not afford conclusive results (13, 21, 24, 27, 31, 35). This advantage of verbalization of response during film presentation would seem to point to this technique as an important one in increasing learning from instructional film. Generalizing from studies made, the following kinds of verbalizing appear to increase learning from film: (a) verbalization of communication content during interspersed reviews (21), (b) answering questions during the film presentation (31), (c) describing action during a perceptual-motor activity (27), and (d) verbally describing the content during the presentation (35).

It should probably be noted that the Kurtz and Hovland study (28) mentioned above was not really a film study as it dealt with the observation of objects. The authors presented sixteen familiar objects to 72 elementary

school children half of whom were required to find and circle on a sheet of pictures the appropriate object pointed to and the other half required to find and circle on a sheet of names of objects the appropriate one. The latter group also pronounced each name aloud as the demonstrator pointed to it. A retention test was given to the groups a week later. The group that had verbalized the time of presentation recalled more items correctly and had fewer incorrect responses than the non-verbalization group.

Three studies on "mental practice" strongly suggests that such techniques may be very effective learning devices under certain conditions. Studies by Harby (15) and Patterson (30) showed "mental practice" techniques to be as effective as actual "overt" physical practice in learning perceptual motor skills. The Michael Study (31) showed "covert" participation to be as effective as "overt" participation. Such dramatic evidence from these few studies involving normal children and adults should provide good grounds for increased interest in similiar research with retardates.

CHAPTER III

PROCEDURE

General Experimental Design:

Three prints of seven short film were made of children involved in learning a study unit entitled "Health and Safety". Each of the three identical sets of film was given a different sound track in an effort to create three sets of film involving three different levels of pupil participation. The three sets of seven film were designated as Techniques I, II, and III and are described as follows::

Technique I - Narrated film (conventional). One copy of each film on the study unit was narrated by the film teacher. This narration was in the form of a recorded voice synchronized with the action in the film. The narration pointed up the facts, principles and desirable changes in behavior that were intended for the pupils to learn.

Technique II - Unnarrated film with recorded voices of children on the sound track. A second copy of the film had recorded responses (disputing, correcting, scolding, sympathizing, warning, etc.) of children synchronized with the action of the film in a manner as to point up facts, principles and intended changes in behavior related to the film content.

Technique III - Unnarrated film with no recorded voices added as in technique II, but in which the audience (the pupils) had been taught to attempt to direct the actions of persons and situations in the film by loud, frequent, unrestrained verbalizations of approval, warning, sympathy, ridicule, etc.

Twenty special classes of educable mentally retarded children in public schools were selected and an attempt made to match four groups of four classes in chronological and mental ages so as to provide an experimental group for each of the three film techniques, plus one control group.

The twenty special classes included two hundred and thirty children. However, final data was collected and computation done on only one hundred and four children due to necessary and unavoidable elimination called for as the experiment proceeded.

One problem of the investigation required the adoption of a separation point between "low-grade educable retardates" and "high-grade mentally retardates." The mental age of sixty-five months was selected as the separation point.

Data and Method:

The data gathered was in the form of pre-test scores made on alternate forms of A Picture Test on Health and Safety designed and used by the principal investigators (5). The test was a recognition test, essentially non-verbal, designed to assess health and safety information and administered by use of forty sets of four camera snapshots, each especially made to depict "good" and "poor" health and safety practices among children. Scores were obtained by having pupils select from among each set of four snapshots what, in their judgement, was the "good" or "bad" health and safety practice. (See instructions for test administration in Appendix B.) In order to eliminate some practice effects, an alternate form of the entire test was made incorporating the same principles or facts in slightly altered context. The test, and the film, were revised prior to experimentation in accordance

with findings of a short-term pilot study conducted in our closest experimental center. The general procedure of the investigation can be schematized as follows:

Step I. A "Health and Safety Information" test administered to each subject in the control and experimental groups.

Step II. The unit of study was begun one day after the pretest had been administered. Film were shown each day for the duration of the unit to the experimental group only. As there were seven film, each film was shown two days consecutively to the experimental groups. Unit instruction for the control group employed no film.

Step III. There was a re-test of both groups using an alternate form of the same tests one day after the termination of unit.

Daily film presentation of the unit to the experimental group was limited to 20 minutes. This time limitation was chosen in consideration of the short attention span and difficulty of assimilation on the part of educable mental retardates. Content and instructional materials in a given subject area were geared to aid the children to better living and adjustment in any community. The subject area selected was predicated on the needs of all people to master a certain degree of proficiency certain knowledge and skills in order to function as useful independent citizens in today's world.

Each of the sixteen special class teachers involved in this investigation was given oral orientation and printed copies of methods and content for the teaching of the study unit along with detailed instructions designed to achieve similarity in general classroom procedure. In addition, teachers of the three experimental film techniques were sent specific instructions regarding the use of the film.

In anticipation of possible bias of data due to notable variation in quality of teaching and/or school and classroom facilities, objective criteria were set up for the purpose of comparing and ranking these variables. Rankings were secured in accordance with the judgements of a cross section of local educators. Subsequently, the classes were divided into four groups of four before the study began. These classes, 3 sets of 4 making up the experimental groups and one set of 4 making up the control group, were "equal" in terms of quality of teaching and school and classroom facilities.

Within the experimental groups subjects were divided according to film techniques to be used. All film techniques were used within the experimental groups and the content of the three types of film on the subject unit was the same. Each of the experimental groups was exposed to only one film technique.

The criteria of effectiveness of the three techniques of film presentation was in terms of test scores indicating amount learned. Alternate forms of the same picture test were used for pretest and posttest.

The mental ages of all subjects were either secured from the office files in cities selected or obtained by administering the S-Binet Scale at the schools prior to experimentation.

Questions Asked and Hypotheses Tested:

The study was designed to afford answers to the following questions:

(1) Are the experimental film techniques superior to the control technique of teaching mental retardates in special classes?

(2) What is the relative effectiveness of the three experimental film techniques?

(3) Is there a significant difference in the manner in which some techniques affect the amount learned by retardates of upper or lower mental age ranges?

(4) Is there a difference in the achievement of pupils whose M.A. status is above 65 months and those whose M.A. status is below 65 months when taught by any of the three techniques?

Procedure for Analysis of Data:

Analysis of co-variance seemed especially suited to this investigation inasmuch as (1) there were several variables involved and (2) it was not possible to obtain equally matched groups at the start of the experiment. Such a situation ordinarily could be reflected in results of final computation. Analysis of co-variance makes it possible to increase the precision of this experiment by the elimination of some cause of variation not controlled by the experimental design (23).

CHAPTER IV

RESULTS AND DISCUSSION

Inspection of Tables X through XIV, Appendix A, will reveal some obvious differences in mental ages and initial achievement scores among the experimental and control groups of educable retarded children comprising the study population. Results of analysis indicated in Table XII, Appendix A, show that the differences in achievement were statistically significant and, thus, that the groups were not alike initially. These differences were controlled statistically, however, by application of analysis of covariance method as described by Johnson (23).

This investigation afforded the testing of the following four hypotheses regarding the learning of facts and principles of health and safety by a selected group of educable mentally retarded children enrolled in special classes in public schools in Louisiana:

Hypothesis I. That there is no difference in the achievement of educable retardates (N=104) in health and safety whether they are taught by one of three experimental film techniques (Techniques I, II, or III) or by the regular classroom procedure (Technique IV).

Hypothesis II. That there is no difference in the achievement of educable retardates (N=60) who are taught facts and principles of health and safety by different experimental techniques of film utilization each allowing for a different level of pupil participation and/or involvement in the learning situation.

Hypothesis III. That mental age status (above or below sixty-five months) does not influence achievement of facts

and principles of health and safety irrespective of the technique used. (N=60).

Hypothesis IV. That there is no difference in the achievement of educable retardates (N=60) whose mental age status is above sixty-five months and those whose mental age status is below sixty-five months when taught facts and principles of health and safety by any one of three special techniques of film utilization.

In order to match subgroups to complete analysis of data relative to ability level (mental age status), it was necessary to use an N of 60 instead of initial N of 104. These 60 pupils were selected equally from the experimental groups comprising 78 of the original 104 retardates.

As regards Hypothesis I, Data are presented in Tables I - IV.

Table IV indicates an F of 1.105 for methods is non-significant. Therefore, in so far as achievement potential in health and safety is controlled by pretest, and no other pertinent factor contributes a bias, there are no significant differences between the experimental and control techniques.

Data regarding Hypothesis II, III, and IV are presented in Tables V through IX. Table IX shows results of computation with only prior achievement controlled. Here it is shown that the F of 0.563 for method is non-significant. Therefore, in so far as prior achievement is controlled by pretest scores, and no other pertinent factor related to achievement in health and safety contributes a bias, there are no significant difference between the three experimental techniques.

Table IX also shows that the F of 2.07 for interaction is non-significant. Therefore, under the same conditions as stated above, no differences in

achievement in health and safety could be demonstrated between educable retardates above and those below a mental age of sixty-five months when taught by any one of the three experimental techniques.

Again in Table IX, it is shown that the F of 4.264 is significant beyond the 5 percent level. Thus, when prior achievement is controlled by pretest scores and no other pertinent factor related to achievement in health and safety contributes a bias, evidence exists that mental age status (above or below sixty-five months) influence achievement in health and safety.

TABLE I

Sums and Means of the Experimental and Control Groups

Technique	N	Posttest		Mental Age		Pretest	
		ΣY	$\bar{Y}$	ΣX_1	$\bar{X}_1$	ΣX_2	$\bar{X}_2$
I	26	753	28.96	1,755	67.50	646	24.84
II	26	751	28.88	1,794	69.00	645	24.81
III	26	666	25.61	1,721	66.19	548	21.07
IV	26	848	32.61	2,057	79.12	744	28.62
Total	104	3,018	29.02	7,327	70.45	2,583	24.84

TABLE II

Summary of Experimental Data for Experimental and Control Groups

Scores	Symbols	For Entire Sample
Post-Test	Σy^2	92374
M. A.	Σx_1^2	541139
Pre-Test	Σx_2^2	71413
Cross Products	$\Sigma x_1 y$	218430
	$\Sigma x_2 y$	79373
	$\Sigma x_1 y_2$	188462

TABLE III

Sums of Squares and Crossproducts in
Deviation Form for Experimental
and Control Groups

Source of Variations	Σy^2	Σx_1^2	Σx_2^2	$\Sigma x_1 y$	$\Sigma x_2 y$	$\Sigma x_1 x_2$
Total	4,793.96	24,973.76	7,260.22	5,806.10	4,416.33	6,484.68
Within Groups	4,155.92	22,233.19	6,521.42	4,609.58	3,730.19	5,216.77

TABLE IV

Analysis of Co-variance and Test of
Significance of Techniques
(y=ax)

		Residuals		
Sources	df	Sum of Squares	Mean	F
Technique	3	50.59	16.86	1.112
Within	100	1,875.56	18.75	
Total	103	1,926.15		

df 3/100
F at .05 level 2.70

The significance of differences between all combinations of methods and group means was tested by use of the standard error of difference between any two adjusted means. Thus, Table XV, Appendix A, shows that no significant differences were found between methods or within I.Q. groups (M.A. levels) after adjustments for initial differences.

Across I.Q. Groupings, Methods I (above 65) and Method II (below 65) were significantly different beyond .01 level. Likewise, Method II (above 65) and Method II (below 65) were significantly different beyond .01 level. (See Table XV, Appendix A). However, these differences are attributable to initial (uncontrolled) differences in mental age evidenced in Table I.

Statistical computations which show the presence or absence of significant differences do not prove anything. Rather, they are indications of probability. Thus, to voice an educational implication of no significant differences between techniques as herein described necessitates a statement declaring a probable lack of differences. Likewise, the indication of

significant differences or relationships calls for a probability statement. In either case, the statistic suggests the amount of risk involved in generalising from data gained from a population sample.

TABLE V

Sums and Means of Test Scores and Mental Ages for the Six Subgroups of Pupils who were Exposed to the Three Experimental Film Techniques

	N	Post-test Y	$\bar{Y}$	Pretest X_2	$\bar{X}_2$	Mental Age X_1	$\bar{X}_1$
Above 65 (M.A.)							
Technique I	10	325	32.50	291	29.10	795	79.50
Technique II	10	327	32.70	295	29.50	754	75.40
Technique III	10	273	27.30	205	20.50	774	77.40
Sub-Total	30	925	30.83	791	26.36	2323	77.43
Below 65 (M.A.)							
Technique I	10	265	26.50	213	21.30	568	56.80
Technique II	10	223	22.30	180	18.00	560	56.00
Technique III	10	248	24.80	195	19.50	540	54.00
Sub-Total	30	736	24.53	588	19.60	1668	55.60
Total	60	1661	27.68	1379	22.98	3991	66.52

TABLE VI

Summary of Experimental Data for Subgroups of Retardates Who Were Exposed to the Three Experimental Film Techniques

Scores		Totals of all Groups
Posttest	Σy^2	48659
Pretest	Σy_2^2	35373
Cross-Products	$\Sigma x_2 y$	41022

TABLE VII

Deviation From Sums of Squares and Cross Products for all Sources of Variation for Subgroups who were Exposed to the Three Experimental Techniques

Sources	Σy^2	Σx_2^2	$\Sigma x_2 y$
Total	2,676.98	3,678.98	1,846.68
Technique	120.03	288.03	175.18
M.A. Status	595.34	86.81	639.45
Interaction	156.71	883.64	205.05
Within	1,804.90	2,420.50	827.00

TABLE VIII

Deviation Form Sums of Squares and Cross Products for all Sources of Variation Combined with Within for Subgroups who were Exposed to the Three Experimental Film Techniques

Within Plus	Σy^2	Σx_2^2	$\Sigma x_2 y$
Technique	1,924.93	2,708.53	1,002.18
M.A. Status	2,500.24	2,507.31	1,466.45
Interaction	1,961.61	3,304.14	1,032.05

TABLE IX

Analysis of Co-variance Showing Residuals (only pretest (x) controlled) for Subgroups Who Were Exposed to the Three Experimental Film Techniques

Sources	df	Sum of Squares	Mean Sum of Squares	F
Technique	2	31.7715	15.89	0.563
M.A. Status	1	120.2169	120.22	4.264*
Interaction	2	116.9069	58.46	2.07
Within	54	1,522.3400	28.19	
Total	59	1,791.2353	222.76	

*Significant beyond the .05 level.

Educational and experimental psychologists have made much of the value of learner involvement in learning. This involvement has been explained to refer to such qualities as follows:

(1) Intensity of attention to task to be learned.

(2) Verbal activity related to the learning task.

(3) Physical activity related to the learning task.

(4) Variously produced causes for the learner to assimilate and generalize on learning.

(5) Uninterruptedness of attention to learning task.

The thesis has been that learning is enhanced by an increase in any one or all of these qualities (8, 12, 25, 30, 36).

The three techniques of film utilization employed in this study were especially designed to incorporate different amounts and/or qualities of pupil personal involvement in the act of learning. More specifically, Techniques I, II, and III in that order, employed special sound film especially designed to cause increasing amounts and/or qualities of involvement as described in the paragraph above.

There was only limited control over pupil involvement in learning in the control group (Technique IV). Teachers were given a suggestive outline which included the traditional classroom activities except that no film could be shown. (See Appendix B). Inasmuch as (1) it was observed that the special class teachers of the control group did, indeed, employ a great variety of classroom activities involving the pupils and (2) the film comprising the three experimental techniques actually constituted almost all of the subject unit in time and content, it is conceivable that the control group (Technique IV) incorporated more pupil involvement in learning than any other technique in some of the special classes.

It is not our aim to explain away or defend results obtained. Certainly, it is true, however, that investigators who are in constant close contact with an experimental project often acquire expectations unavoidable.

As the experiment progressed, it was very obvious that pupils under Technique III were enjoying themselves far more than pupils in other groups. As the nature of the evidence of enjoyment indicated that much fundamental learning was taking place, there was a decided inclination to believe that Technique III would prove to be most effective. The fact that it did not prove to be more effective than the other techniques stimulates some discussion.

Technique III required that pupils learn to try to anticipate and correct and/or direct the action of the film on health and safety. This they did, and commendably well it appeared. The intensity of attention, verbal and physical activity and technically produced causes to assimilate and generalize were apparently as good as expected. The quality previously referred to as "uninterruptedness of attention to the learning task" was not very good and, herein, it seems, was the principal cause of the failure of Technique III to prove superior to any other of the four techniques.

It is conceivable that outstanding learning potential of Technique III was offset by the tendency of individual pupils to be interrupted in their attention to more facts and principles during and after the first run of each film by the exclamations, gestures, etc., of other pupils. That is to say, a given pupil was impeded in gaining new insight by the competing tendency to notice other pupils and what they sensed and were responding to. This often quoted characteristics of distractability and hyperactivity among retardates, very conceivably expressed itself by causing mass reponses to what was most obvious to most pupils and blocking out substantial independent achievements beyond the common level.

It was thought that Technique II had a quality of personal appeal to the subjects that was not operating in the case of Technique I. Whereas Technique I was a traditional narration, ostensibly by a classroom teacher, Technique II consisted of the same film with the story of the film; (the facts and principles) being impressively emphasized by a simultaneous sound track containing especially selected spaced responses of adolescent boys and girls to the content of the film. Apparently the attention-drawing power of this technique and the intended psychical tendency of the pupils to regard the voices as their own were not enough to cause a significant difference in the amount learned.

As was indicated earlier, the film techniques were designed to exploit and/or overcome such traits as hyperactivity, perseveration, and distractability often found among educable mental retardates. If these traits are more prevalent among certain etiological types (brain-injured, familial, etc.) as held by some authors (25), the fact that there was no special control of etiology introduces the possibility of some bias in results.

The finding that achievement of retardates is related to mental age was expected and understood. Those of higher mental age simply brought to the learning task more perceptual and conceptual abilities, more experience due to higher chronological age, plus, greater inhibition to distractions and perserveration while learning. Too, all of these qualities except experience were apparently basic to Underwood's relevant contention that fast learners are favored over slow learners in recall if both have had equal practice time (38).

Perhaps there is something to be said for the fact that the three film techniques were apparently as good as the regular teaching method, minus film. The subjects involved had chronological ages ranging from 8 to 14 and,

thus, most of them had had considerable experience in learning via the regular classroom procedure. Conceivably, three weeks is not sufficient time to enable mental retardates to adjust favorably to a new technique of teaching. However, if further investigation reveals evidence which tends to corroborate the finding that the regular classroom procedure is no better than almost exclusive use of special sound film, then critical assesment of the relative cost and time requirement of the methods may well imply that any one of several film techniques is more practical than regular classroom activities in teaching educable mental retardates.

It is to noted that action sound-film have a minimum speed at which they maintain the desirable quality of reality. Thus, a successful teaching film for use with educable retardates must solve conflicting problems due to the need to have normally rapid speech on the sound track, and at the same time, have action which is sufficiently slow and deliberate for retardates to perceive and understand. In effort to solve these problems in this investigation, factual content and principles implied by actions that were uncommonly difficult to film were eliminated and an attempt made to include additional amounts of simpler content. Perhaps a similar study which would allow for more advanced subject content in the film would have the effect of raising the pretest and post-test ceiling appreciably, and thereby, obtain somewhat different experimental results.

This investigation sought to determine the relative effectiveness of teaching methods in terms of amounts learned in three weeks. This, of course, involved retention; but was not a valid measure of permanence of learning. Thus, this study affords no conclusive evidence as to the ultimate effectiveness of the methods. Our evidence is that pupil participation and/or involvement in learning by use of special methods as herein defined apparently does

not appreciably affect the amount of health and safety content learned by educable mental retardates enrolled in special classes.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was designed to determine (1) whether there was significant difference in the effectiveness of three experimental film techniques and a control technique of teaching "health and safety" to educable mental retardates, (2) whether the effectiveness of the three experimental film techniques differed significantly within mental age groups, and (3) whether there was a significant difference in the effectiveness of the film techniques for retardates below and above a mental age of 65 months.

Three sets of seven identical short film were made involving normal children engaged in common learnings above principles and habits of health and safety. By providing a different sound track for each of the three sets of film, three different experimental techniques of film utilization ostensibly involving different levels of audience participation were devised.

Four sets of four special classes of educable mental retardates similar with regard to training and/or experience of teachers, school facilities, chronological age range and mental age range were selected as could be found in tact in North and Central Louisiana. Intelligence quotients and mental ages were verified either by reference to records at the schools and at local school board offices or by administering the Stanford-Binet Intelligence Scale, 1937 Revision. A 40-item non-verbal picture test (5), constructed by the principal investigators and emphasizing principles and habits of health and safety among children was administered to the children in all sixteen special classes prior to the beginning of experimentation.

Experimentation was begun on the day following pretest and it entailed the teaching of identical three-week subject matter units on health and safety to each of the four sets of special classes. Each of three of the four sets

of four classes was designated Experimental Group I, II, or III indicating the three different film techniques employed in teaching the unit. The fourth set of four special classes was taught the three week study unit without the aid of film of any kind. Similarity of teaching among the sixteen special classes was controlled by providing suggestive unit outlines and by periodic visits to schools and discussion of expected teaching procedure.

A post-test was administered the day following the termination of the three week unit and consisted of an alternate form of the same 40-item non-verbal picture test used as a pretest. Final computations involved pretest and post-test scores on one hundred and four mental retardates. All achievement scores were analyzed by an analysis of co-variance technique as provided by Palmer O. Johnson (23). The major findings were:

(1) In so far as scholastic aptitude is controlled by mental age and prior achievement is controlled by pretest, and no other pertinent factor related to achievement in "health and safety" contributed a bias, the effectiveness of the three experimental techniques and the control technique cannot be proven unequal.

(2) In so far as prior achievement is controlled by pretest scores, and no other pertinent factors related to achievement in "health and safety" contribute a bias, the effectiveness of the three experimental film cannot be proven unequal.

(3) Under the same conditions as stated above, no difference in achievement in "health and safety" could be demonstrated between pupils above and below M.A. of 65 months when taught by any one of the three techniques.

(4) When prior achievement is controlled by pretest scores and no other pertinent factors related to achievement in "health and

safety" contribute a bias, evidence exists that mental age status (above or below M.A. of 65 months) influences achievement in "health and safety."

The results were discussed with respect to several concepts from experimental psychology of human learning and clinical theory of mental retardation within the general framework of the experimental design.

APPENDIX A

TABLE I

Pretest and Post-test Scores, Chronological and Mental Ages, I.Q. Scores, Sex and Schools of Mental Retardates Comprising the Total Study Population

TECHNIQUE I

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	23	32	171	70.11	41	M	Central High School
2	19	36	152	100.32	66	F	Coleman High School
3	28	33	157	94.20	60	M	Coleman High School
4	17	22	158	47.40	30	M	Central High School
5	30	34	117	70.20	60	F	N. Scotlandville Elementary School
6	35	36	117	77.39	67	F	N. Scotlandville Elementary School
7	14	19	113	62.15	55	M	Central High School
8	19	25	171	63.27	37	M	Central High School
9	21	23	128	58.88	46	M	N. Scotlandville Elementary School
10	29	35	128	48.64	38	M	N. Scotlandville Elementary School
11	15	23	95	32.25	35	M	Central High School
12	32	32	130	72.80	56	F	N. Scotlandville Elementary School
13	21	19	104	60.32	58	F	N. Scotlandville Elementary School
14	32	30	115	67.85	59	M	N. Scotlandville Elementary School
15	32	30	155	94.55	61	M	N. Scotlandville Elementary School
16	28	27	104	69.68	67	F	N. Scotlandville Elementary School
17	25	30	122	58.56	48	M	N. Scotlandville Elementary School
18	15	20	139	82.21	59	M	N. Scotlandville Elementary School
19	31	32	143	71.50	50	F	N. Scotlandville Elementary School
20	36	34	116	75.40	65	F	Coleman High School
21	32	35	121	70.18	58	F	N. Scotlandville Elementary School
22	23	26	125	63.75	51	M	N. Scotlandville Elementary School
23	25	30	120	57.68	48	F	N. Scotlandville Elementary School
24	12	23	115	54.05	47	F	N. Scotlandville Elementary School
25			119	66.64	56	F	N. Scotlandville Elementary School
26			110	56.10	51	M	Milam Street Exceptional School

TECHNIQUE II

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	34	38	110	69.30	63	M	Tim Tippitt Elementary School
2	26	32	108	55.08	51	M	Reddy Elementary School
3	16	27	97	64.02	66	M	Allen High School
4	23	30	146	74.46	51	F	Tim Tippitt Elementary School
5	12	14	133	49.21	37	M	J. L. Jones Elementary School
6	12	27	123	72.57	59	M	Allen High School
7	12	15	132	51.48	39	M	J. L. Jones Elementary School
8	25	30	126	66.78	53	F	Tim Tippitt Elementary School
9	35	32	132	81.08	69	M	Reddy Elementary School
10	25	35	131	87.77	67	M	Tim Tippitt Elementary School
11	14	19	115	55.20	48	M	J. L. Jones Elementary School
12	28	34	112	77.28	69	M	Reddy Elementary School
13	38	38	141	76.24	64	M	Tim Tippitt Elementary School
14	37	35	156	70.20	45	F	Reddy Elementary School
15	38	28	125	82.50	66	M	Tim Tippitt Elementary School
16	19	30	130	71.50	55	M	Allen High School
17	33	37	106	58.30	55	M	Reddy Elementary School
18	39	39	126	85.68	68	M	Tim Tippitt Elementary School
19	35	37	128	80.64	63	F	Tim Tippitt Elementary School
20	35	38	111	77.70	70	M	Tim Tippitt Elementary School
21	18	19	109	43.60	40	M	J. L. Jones Elementary School
22	21	30	156	87.96	56	F	Tim Tippitt Elementary School
23	21	27	152	80.56	53	F	Allen High School
24	26	31	167	91.85	55	F	J. L. Jones Elementary School
25	14	19	139	65.92	48	F	Allen High School
26	16	23	111	57.62	52	F	Allen High School

TECHNIQUE III

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	29	22	163	48.90	30	F	Park Elementary School
2	28	34	99	55.27	67	M	Milam Street Exceptional School
3	9	20	205	102.50	50	F	Park Elementary School
4	18	23	110	63.25	69	F	Milam Street Exceptional School
5	29	35	110	79.20	72	F	St. Matthew High School
6	34	38	142	77.91	55	M	Milam Street Exceptional School
7	24	20	95	76.00	80	M	St. Matthew High School
8	18	22	183	71.37	39	F	Park Elementary School
9	20	32	119	60.49	61	M	Lincoln Elementary School
10	10	21	137	49.32	36	M	Park Elementary School
11	23	24	129	72.24	56	F	Park Elementary School
12	25	34	136	73.66	65	M	Lincoln Elementary School
13	16	24	96	52.80	66	M	Lincoln Elementary School
14	17	36	154	83.41	65	M	Lincoln Elementary School
15	14	19	127	52.07	41	F	St. Matthew High School
16	30	36	135	76.95	57	F	Milam Street Exceptional School
17	16	23	97	57.23	59	M	St. Matthew High School
18	20	28	138	54.05	47	F	Lincoln Elementary School
19	14	20	150	69.00	46	F	St. Matthew High School
20	16	26	149	73.01	49	F	Lincoln Elementary School
21	24	22	104	50.96	49	F	Park Elementary School
22	15	15	103	25.75	25	M	St. Matthew High School
23	20	16	152	68.40	45	M	Park Elementary School
24	24	33	116	76.56	66	M	Milam Street Exceptional School
25	15	14	130	59.80	46	F	St. Matthew High School
26	37	37	123	86.10	70	M	Milam Street Exceptional School

TECHNIQUE IV

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	32	37	179	109.19	61	M	Park Elementary School
2	22	33	119	70.21	59	M	Park Elementary School
3	25	31	134	85.76	64	M	Park Elementary School
4	38	39	134	87.10	65	M	Arcadia High School
5	37	40	103	76.28	76	M	B. T. Washington High School
6	35	39	166	101.26	61	M	Arcadia High School
7	28	29	115	71.30	62	M	Arcadia High School
8	17	14	119	60.00	50	F	Park Elementary School
9	14	34	81	42.93	53	F	Arcadia High School
10	16	29	92	58.88	64	M	Arcadia High School
11	18	22	96	63.36	66	F	Arcadia High School
12	35	31	112	75.04	67	F	B. T. Washington High School
13	37	36	141	88.83	63	F	Park Elementary School
14	25	24	117	70.20	60	F	Park Elementary School
15	34	33	143	70.07	49	F	Park Elementary School
16	34	33	110	86.90	79	M	Park Elementary School
17	34	32	155	88.35	57	F	Park Elementary School
18	18	20	100	57.00	57	M	Shady Grove Elementary School
19	37	38	138	78.66	57	F	B. T. Washington High School
20	34	38	150	93.00	62	M	Park Elementary School
21	37	38	163	123.78	76	M	B. T. Washington High School
22	30	34	113	75.71	67	M	B. T. Washington High School
23	27	32	160	83.20	52	M	Shady Grove Elementary School
24	34	38	129	70.95	55	M	Park Elementary School
25	29	37	168	84.00	50	M	Shady Grove Elementary School
26			145	71.05	49	F	Park Elementary School

TABLE XI

Pretest and Post-test Score, Chronological Ages, Mental Ages, I.Q. Scores, Sex and Schools of Six Matched Sub-groups of Pupils Exposed to the Experimental Film Techniques

EXPERIMENTAL GROUP I
TECHNIQUE I

Pupil No.	Pretest Score	Post-test Score	C.A	M.A.	I.Q.	Sex	School
1	23	32	171	70	41	M	Central High School
2	19	36	152	100	66	F	Coleman High School
3	28	33	157	94	60	M	Coleman High School
4	30	34	117	70	60	F	N. Scotlandville Elementary School
5	35	36	117	77	67	F	N. Scotlandville Elementary School
6	32	27	130	72	56	F	N. Scotlandville Elementary School
7	37	35	115	72	56	F	N. Scotlandville Elementary School
8	30	30	155	94	61	M	N. Scotlandville Elementary School
9	22	27	104	69	67	F	N. Scotlandville Elementary School
10	35	35	139	82	59	M	N. Scotlandville Elementary School
11	17	22	143	47	50	F	Coleman High School
12	14	19	113	62	55	M	Central High School
13	19	25	171	63	37	M	Central High School
14	21	28	128	58	46	M	N. Scotlandville Elementary School
15	29	33	128	48	38	M	N. Scotlandville Elementary School
16	15	23	95	52	55	M	Central High School
17	23	19	104	60	58	F	N. Scotlandville Elementary School
18	20	30	122	58	48	M	N. Scotlandville Elementary School
19	22	34	125	63	51	M	N. Scotlandville Elementary School
20	23	37	120	57	48	F	N. Scotlandville Elementary School

EXPERIMENTAL GROUP II
TECHNIQUE II

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	34	38	110	69	63	M	Tim Tippitt Elementary School
2	23	30	146	74	51	F	Tim Tippitt Elementary School
3	12	27	123	76	59	M	Allen High School
4	25	30	126	66	53	F	Tim Tippitt Elementary School
5	35	42	132	81	69	M	Reddy Elementary School
6	35	35	131	87	67	M	Tim Tippitt Elementary School
7	38	38	112	77	69	M	Reddy Elementary School
8	38	38	141	76	64	M	Tim Tippitt Elementary School
9	37	35	156	70	45	F	Reddy Elementary School
10	38	28	125	82	66	M	Tim Tippitt Elementary School
11	26	32	108	55	51	M	Reddy Elementary School
12	16	27	97	64	66	M	Allen High School
13	12	14	133	49	39	M	J. L. Jones Elementary School
14	12	15	132	51	39	M	J. L. Jones Elementary School
15	14	19	115	55	48	M	J. L. Jones Elementary School
16	33	37	106	58	55	M	Reddy Elementary School
17	18	19	109	43	40	M	Allen High School
18	14	19	139	65	48	F	Allen High School
19	16	23	111	57	52	F	Allen High School
20	19	18	104	63	61	M	Allen High School

EXPERIMENTAL GROUP III
TECHNIQUE III

Pupil No.	Pretest Score	Post-test Score	C.A.	M.A.	I.Q.	Sex	School
1	9	20	205	102	50	F	Park Elementary School
2	29	35	110	79	72	F	St. Matthew High School
3	24	28	95	76	80	M	St. Matthew High School
4	18	22	183	71	39	F	Park Elementary School
5	23	24	129	72	56	F	Park Elementary School
6	25	34	136	73	65	M	Lincoln Elementary School
7	17	38	154	83	65	M	Lincoln Elementary School
8	30	36	135	76	57	F	Milam Street Exceptional School
9	14	20	150	69	46	F	St. Matthew High School
10	16	26	149	73	49	F	Lincoln Elementary School
11	29	22	163	48	30	F	Park Elementary School
12	28	34	99	55	67	M	Milam Street Exceptional School
13	18	23	110	69	F	M	Milam Street Exceptional School
14	20	32	119	60	61	M	Lincoln Elementary School
15	10	21	137	49	36	M	Park Elementary School
16	16	24	96	52	66	M	Lincoln Elementary School
17	14	19	127	52	41	F	St. Matthew High School
18	16	23	97	57	59	M	St. Matthew High School
19	20	28	138	54	47	F	Lincoln Elementary School
20	24	22	104	50	49	F	Park Elementary School

TABLE XII

Significance of Initial Differences Between Means
of Groups Comprising the Experimental and Control Techniques

N 104 df = 25

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\Sigma x_1^2}{N(N-1)} + \frac{\Sigma x_2^2}{N(N-1)}}}$$

	N	M.A.	Pretest Scores	Initial Differences in M.A.	Initial Differences in Achievement
Technique I	26	67.50	24.84	Technique I & II t=0.417	Technique I & II t=0.00
Technique II	26	69.00	24.81	Technique I & III t=0.313	Technique I & III t=1.84
Technique III	26	66.19	21.07	Technique I & IV t=2.74*	Technique I & IV t=1.77
Technique IV	26	79.12	28.62	Technique II & III t=0.697	Technique II & III t=1.59
				Technique II & IV t=2.48*	Technique II & IV t=1.58
				Technique III & IV t=2.81**	Technique III & IV t=3.54*

* Significant beyond .02

** Significant beyond .01

TABLE XIII

Significance of Initial Differences Between Means of
Matched Groups of Retardates Who Were Exposed to the Three Film Techniques

N 60 df = 19

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\Sigma x^2}{N(N-1)} + \frac{\Sigma x^2}{N(N-1)}}}$$

	N	M.A.	Pretest Scores	Initial Differences in M.A.	Initial Differences in Achievement
Technique I	20	68.15	25.50	Technique I & II t = 0.572	Technique I & II t = 0.550
Technique II	20	65.70	23.75	Technique I & III t = 0.544	Technique I & III t = 2.47*
Technique III	29	65.70	20.00	Technique II & III t = 0.000	Technique II & III t = 1.47

* Significant beyond .05

TABLE XIV

Table of Adjusted Means

$$y = a\,x$$

$$a = \frac{\Sigma xy}{\Sigma x^2}$$

Substituting in Regression Equation

A = 0.34166

Adjusted means with I. Q. groups

Above M.A. of 65 months

Technique I	32.50	30.41
Technique II	32.70	30.47
Technique III	27.30	28.15

Below M.A. of 65 months

Technique I	26.50	27.07
Technique II	22.30	24.00
Technique III	24.80	25.99

Adjusted means according to techniques

Technique I	29.50	28.74
Technique II	27.50	27.76
Technique III	26.05	27.07

TABLE XV

Tests of Significant Differences Between Adjusted Means

S.D. between any two adjusted means (N=10) = 2.37

for df = 54, t .05 = 2.01
t .01 = 2.68

Significant difference at .05 level 4.76

Significant difference at .01 level 6.35

Between Techniques

No significant difference (Obvious from inspection of adjusted means in Table XIV, Appendix A).

Within I.Q. Groupings

No significant differences (Obvious from inspecion of adjusted means in Table XIV, Appendix A).

Across I.Q. Groupings

Technique I (above 65) and Technique II (below 65) significance .01.

Technique II (above 65) and Technique II (below 65) significance .01.

(See Table I for initial uncontrolled differences in mental age).

APPENDIX B

U. S. Office of Education Research Project #716020-09

Grambling College

LIST OF EXPERIMENTAL CENTERS

BLOCK ONE

Experimental #1	Mrs. Magnolia Davis Milam Street Exceptional School
Experimental #2	Mrs. Nancy Morgan J. L. Jones Elementary School
Experimental #3	Mrs. Minnie Burden Milam Street Exceptional School
Control (1)	Mrs. Verna L. Jacobs Milam Street Exceptional School

BLOCK TWO

Experimental Gr. #1	Mrs. Ida M. Cooper N. Scotlandville Elementary School
Experimental Gr. #2	Mrs. Dorothy Durio Beddy Elementary School
Experimental Gr. #3	Mrs. Laura Hall Park Elementary School
Control (2)	Mrs. Octavia Jones Park Elementary School

BLOCK THREE

Experimental Gr. #1	Mrs. Willie Mae Joseph Central High School
Experimental Gr. #2	Mrs. Evelyn Nash Allen High School
Experimental Gr. #3	Mrs. Daisy P. Lacour St. Matthew High School
Control Group #3	Miss Winderlean Smith Shady Grove Elementary School

List of Experimental Centers (continued)

BLOCK FOUR

Experimental Gr. #1	Mrs. Louise R. Townsend Coleman High School
Experimental Gr. #2	Miss Shellie Young Tim Tippitt Elementary School
Experimental Gr. #3	Mrs. Rose Hodge Lincoln Elementary School
Control Groups #4	Miss Esther Lean Vernon Arcadia High School
Extra Control (4)	Miss L. O. Jamison B. T. Washington Elementary School

Comparative Data on Teachers of Special Classes
C-O-N-F-I-D-E-N-T-I-A-L
(Special Education Research
Grant #716020-09)
Grambling College
Grambling, Louisiana

Name of Teacher: _____ Name of School: _____

Teacher's undergraduate major: City of School: _____

_____

Teacher's undergraduate minor: (Snapshot in class)*

_____

Graduate degree or number of semester hours beyond bachelor degree: _____

Years of experience as special-class teacher: _____

Years of experience as a teacher: (Including special class work)

(Please check one)

_____ Two years or less
_____ Three to 5 years
_____ Six to 10 years
_____ Eleven to 15 years
_____ Over 15 years

If you are trying to certify as a special class teacher (are not yet certified), please circle each of the following courses that you have taken at undergraduate or graduate level:

Psych of Mentally Retarded
Curric & Methods for Mental Retardates
Art for the Exceptional Child
(or an equivalent course)
Education (or Psychology of Exceptional Children
Organization & Administration of Classes (Programs) for Mentally Retarded Children
Mental Tests & Measurements
Human Growth & Development of Educational Psychology

*We will use our own snapshot made in your class.

APPENDIX C

SUGGESTED UNIT OUTLINE: HEALTH AND SAFETY

To the Teacher:

The content outline and the possible activities and experiences listed on the accompanying pages are only suggestive procedure for the teacher. The usual classroom procedures for stimulating interest through bulletin boards, display of literature, recent incidents, stories, action songs, and similar activities may be used.

Teachers may feel free to organize the subject matter to suit their individual situations and need. The activities should serve as guides only and others may be submitted if it is considered desirable.

UNIT: SAFETY AT HOME

I. Aspects of Safety (some hazards)

Articles in walking area
Gas
Electricity
Medicines

II. Prevention of Accidents

Some do's
Some don'ts

III. Safety Rules for the Home

Some Suggested Activities

The teacher can make charts illustrating aspects of safety. Let pupils tell what is the correct procedure.

Show charts and pictures of hazards.

Discuss poster of safety rules (do's and don'ts).

Teacher can read simple stories on home safety.

Discuss with pupils what to do when accidents occur.

UNIT: SAFETY OUT-OF-DOORS

This unit would be developed in much the same way as Safety at Home. The content would be in keeping with the topic involving experience which is had out-of-doors (bicycles, road-crossings, busses, auto, etc.)

Charts and pictures should show types of play and machines which children actually experience and with which they come in contact.

UNIT: GOOD POSTURE

I. Meaning of Posture

II. Effect of Poor Posture

III. Posture and Health

IV. Acquiring Good Habits

Some Suggested Activities

Teacher might discuss with pupils the meaning of posture and how it is related to general health.

Children can analyse good and poor posture in classmates (why).

Make charts showing good and poor posture and discuss with pupils.

Pupils might demonstrate types of posture: sitting, walking, standing.

Pupils practice sitting tall, standing, walking erect.

UNIT: SAFETY PLAY AT SCHOOL

I. Orderly use of playground equipment prevents accidents.

II. Orderly use of playground equipment permits everyone to have fun.

III. Compare results of proper and improper manner to walk in halls.

IV. Classroom hazards.

Contrast proper and improper usage of handling scissors and other sharp tools

Some Suggested Activities

Since this unit is very close to all children's activities, the teacher may introduce the unit by pointing out some recent incident at school. The pupils' interest may be further aroused by permitting them to say how the incident could be avoided. Role playing could also be used to reinforce the basic principles. Let pupils organize themselves into teams and compete in observing safe practices. Each accident is a score for the other team.

UNIT: CLEANLINESS

I. Personal Grooming

Articles used in Grooming

Mirror, handwashing facilities, shoeshining kit, handkerchief, etc.

Self-inspection procedure

Getting ready for school
Pupils as helpers

Importance of Personal Cleanliness

Some Suggested Activities

Teacher can show devices used in personal grooming.
How used should be explained with help of pupils.
Pupils can inspect themselves and each other -- discussion.
Make charts showing contrasts -- good grooming, poor grooming.

II. Personal Cleanliness

Steps in brushing teeth (use charts)
Effects of lack of care of teeth
Steps in hand care

Some Suggested Activities

Children view devices for personal grooming (real objects).
Demonstrations using correct ways of grooming (discussion).
Study charts illustrating procedures used in grooming. Make simple picture-word charts.

UNIT: COURTESY AND MANNERS

I. Courtesy to Others

Helping Others

The kind way
The unkind way
Principles to be understood

II. Politeness During Work

The result of thoughtlessness
Good manners in sharing
Principles to be understood

Some Suggested Activities

Teacher might introduce topic through conversation and discussion. Use as many situations involving courtesy and manners as needed. Pupils might demonstrate the scenes listed above and draw out principles with the teacher's help.

Show and discuss posters showing acts of courtesy and discourtesy. Pupils might play a game finding the picture which illustrates correct and incorrect manners.

Pupils and teacher might make simple rules for courteous behavior.

III. Manners in Eating at Table

Table setting

Placing silver and dishes
Preparation for eating

Serving the meal

Improper manners
Learning the correct way

Principles to be understood

Some Suggested Activities

Teacher could discuss behavior in lunchroom (some behave poorly). Pupils may give ideas about correct behavior. Pupils and teacher might plan demonstrations to illustrate proper manners at table and good eating habits. Pupils take turns telling which types of behavior are incorrect or correct. Develop simple standards for chart -- pupils study and read.

UNIT: FOODS KEEP US HEALTHY

I. Value of Food

What Foods do for us

II. Foods for Growing Boys and Girls (Basic 7)

III. Balanced Meals

IV. Result of Improper Diet

V. Results of Proper Diet

VI. Basic Concepts to be Learned

Some Suggested Activities

The teacher might introduce the unit through group conversation centered around the importance of foods for the body.

Use standard food chart to explain food classification. Let pupils identify and name.

Make or collect pictures which illustrate the effect of food upon health (teacher). Pupils explain each.

Make food cards showing balanced meals (breakfast - lunch - dinner).

Use cut-outs of foods and help children to place in correct categories.

Prepare two food trays (from lunchroom) showing well balanced and poorly balanced lunches.

TO THE TEACHERS OF EXPERIMENTAL GROUP I

The film you will use are plain narrated films. That is, the film shows the actions of children in and out of school situations.....all actions centered around "Health, Safety and Courtesy." A voice points up the important facts, principles and understandings.

You are asked to show each film twice daily (once in the morning and again in the afternoon). At least one of these showings each day should be during the regular class time that you usually spend on such topics as "Health, Safety and Courtesy." When you have shown each film two days, we will pick up the film and give another test to determine how much the children learned.

Finally, the U. S. Office of Education is not spending this money to find how well any teacher can teach. We only wish to compare the effectiveness of no films to some films and each one film technique to the others.

Thank you and good luck.

(LJC - U. S. O. E. Project, 59-60)

TO THE TEACHERS OF EXPERIMENTAL GROUP II

The film you will use are a type in which children's voices are on sound track in such a manner as to follow and emphasize the correctness and incorrectness of the actions of children in the film. It is intended that children in your class will learn some new facts and principles of "Health, Safety, and Courtesy" as you use these film along with your usual work.

You are asked to show each film twice daily (once in the morning and again in the afternoon). At least one of these showings each day should be during the regular class time that you usually spend on such topics as "Health, Safety, and Courtesy." When you have shown each film two days, we will pick up the film and give another test to determine how much the children learned.

Finally, the U. S. Office of Education is not spending this money to find how well any teacher can teach. We only wish to compare the effectiveness of no film to some film and each one film technique to the others.

Thank you and good luck.

(LJC - U. S. O. E. Project, 59-60)

TO THE TEACHER OF EXPERIMENTAL GROUP III

The film you will use are a type which have no voice sounds. This is a SPECIAL EXPERIMENTAL GROUP. You are asked to pre-view each film and prepare yourself to lead your class "to try to direct the action or events of each film" by speaking out loud and/or by general unrestrained responses to the film content. All film center around "Health, Safety, and Courtesy."

The children will probably ask you questions during and after each film. During the film, do your best to have them answer their own questions by use of such remarks as "what do you think about it?" Before and after each film, answer all questions as best you can.

You are asked to show each film twice daily (once in the morning and again in the afternoon). At least one of these showings each day should be during the regular class time that you usually spend on such topics as "Health, Safety, and Courtesy." When you have shown each film two days, we will pick up the film and give another test to determine how much the children learned.

Finally, the U. S. Office of Education is not spending this money to find how well any teacher can teach. We only wish to compare the effectiveness of no film to some film and each one film technique to the others.

Thank you and good luck.

(LJC - U. S. O. E. Project, 59-60)

TO THE TEACHERS OF THE CONTROL GROUP

You are asked to teach the concepts emphasized in the enclosed units without the use of any film. All other sorts of visual aids are permissible... but no film.

The unit centers around "Health, Safety, and Courtesy." Please teach the concepts mentioned even though you have already covered them this year. Do not worry about the fact that you have only about 14 class days to teach the unit. (That's about one new area a day for ten days).

Do your best with what materials you have and/or can get to fit the occasion.

Finally, the U. S. Office of Education is not spending this money to find how well any teacher can teach. We only wish to compare the effectiveness of no film to some film and each film technique to the others.

Thank you and good luck.

(LJC - U. S. O. E. Project, 59-60)

FILM SERIES: HEALTH AND SAFETY

Number I
Title: Safe Play at School

Scenes

1. As film opens children are seen on playground as camera shows a long shot of playground and children playing on slides and swings.*

2. Medium shot shows children at the slide as they fight for a turn to slide on the slide with the results that none of them are able to slide.

3. One child finally decides to try to get them to stop and take turns and they do as we see them sliding and having fun as we see right away being shown. (Dissolve to)

4. Children (2 or 3) are seen standing in swings as they swing high. Some children are seen trying to tell them not to stand up in the swings and swinging so high. They finally stop as we see them being told and showed how to sit in a swing and swing properly as we see the other children smiling approval to the correct way being shown. (Fade)

5. Children are seen entering the school building from the outside.

6. As children are seen entering inside of building, we see some of them running down the halls with two of them falling on the floor as the other children gather around them. (Dissolve)

7. Children are seen pushing to be first to drink water at fountain; they pause and look at camera for a moment and then they line up as they should and start drinking water as they should as the camera dissolves.

8. Children are seen going into classroom. After last child has entered we see a late child rushing in the door running and meets a child coming out of room with trash can and they both fall on the floor as the teacher is seen coming to the door and looking at them with disgust.

9. Teacher is shown as she is talking to children and they re-act the scene showing the right way as we see the children walking each on the right side and not having any accident. (Dissolve)

10. We next see examples of unsafe acts in the classroom:

    1. Passing scissors wrong and the right way.
    2. Trimming pencil with razor blade and with regular sharpener
    3. Posters showing some examples as above.

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Number II
Title: Safe Play Out of Doors

Scenes

1. Classroom with students shown putting on coats, getting books, and etc. and passing out of room going home as teacher is saying bye to some of them.

2. Children are seen leaving school building as they are seen walking down walk near the nursery school as some are playing, running and jumping on the backs of boys as they fall on the ground.

3. Children are seen as they approach and reach the intersection near the church were the patrolman is directing some children across the street.

4. Two children are seen as they ignore the patrolman and start across the street with a car approaching that they do not see. Camera shows the car and back to the children as the scene shows that one of the children falls in front of the car and the car stops just in time to avoid hitting the child.

5. Child is assisted up on his feet and carried across the street as the patrolman talks to both of the two children. (Fade)

6. Child is seen climbing a light pole as child is seen telling him to come down. He is then seen about to fall as the child on the gound is seen calling for help. We then see the child being helped down by an adult man. (or two) Fade

7. Fade in
Three children are seen walking from school with books as they are approaching a ditch. They stop and look as they discuss it. One child goes toward the ditch to jump it as the others seem to tell him not to do it. He runs and jumps the ditch but does not quite make it and falls in the ditch. The other children rush to give him help as he shows pain of the ankle and is given help as he limps off.

8. Child is seen riding on walk while children are walking on walk as we see one child being knocked down as the others jump out of the way. Scene ends as child on bike returns to the person on ground and he and other children stand looking at the child on ground.

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Number III
Title: Safety at Home

Scenes

1. Long shot of classroom showing class in progress with teacher and students.

2. Medium shot of classroom with teacher pointing to posters on safety at home. Dissolve in to a close up showing the contents of the posters. (Fade out)

3. Medium shot showing teacher as moving from the posters and looking toward clock on wall that shows 3 o'clock. Class is shown being dismissed as students pass. (Fade out)

4. Fade in
Child is shown getting off bus and running with his books in arms and other school supplies.

5. Child running to door where he is met at front door by his mother and smaller brother. They open the door and go into the house. Door closes. (Fade out)

6. Fade in
Medium shot showing child at closet putting up his coat and cap. He then starts to take out toys as he puts the skates in the walking path. (Dissolve)

7. Brother rushes into the room approaches the skates. (Dissolve to)

8. Close up shows foot as it hits skate and slips. (Dissolve)

9. Brother is shown on floor as child is seen over him calling to mother who rushes into room excited. (Fade out)

10. Group is seen giving aid to child who seems to be recovering as mother points to skates and where they should be put. Child is shown responding and moving skates and other toys. (Fade out)

PART II

11. Fade in
Child is shown in kitchen near gas stove. He opens oven door to light it but his match does not burn as he turns on the gas. He moves away to get another match. (Dissolve to)

12. Close up of gas overn knob showing it is one. Camera moves back as child starts to stove with match. He is about to strike it when his mother enters door and screams and stop him.

13. Mother asks the question, "How should you light an oven?" Pause as camera stays on mother. (Fade out)

Title: Safety at Home (Continued)

PART III

14. Fade in
Child is seen in bathroom about to start brushing his teeth when he opens the cabinet to get the toothpase he sees a large bottle. He takes the bottle from the cabinet and looks at the label. (Dissolve)

15. Close up of bottle and label as child pours several pills in his hand. (Dissolve)

16. Medium shot
Child examines pills, smells them and finally he tastes them followed by eating several of them. He then continues to follow up the brushing of the teeth.....(Fade out)

17. Fade in
Child is seen in his room reading funny book. He starts holding his stomach and finally he goes and lies on the bed still holding stomach and showing pain. (Dissolve)

18. Mother is shown entering the room. She notices the child on the bed and rushes to see what is the matter. He finally tells her what has happened. Mother rushes to the telephone and calls the doctor. (Fade out)

19. Doctor enters the room and talks to mother who explains and shows him the bottle. He then moves to the child, has him start pulling off his shirt as he moves to open his bag. (Fade out)

20. Child is shown in bed with doctor near child and mother. He explains the danger to both as he points to the bottle. Child nods head showing approval. Doctor is seen leaving the room....(Fade out)

PART V

21. Fade in
Mother is in her chair reading the paper. Child is shown playing near an electrical outlet on the floor. While playing he notices a hair clamp on the floor and picks it up and looks at it as he thinks. Looking around he proceeds to bend it and stick it into the electrical outlet. (Dissolve)

22. Close-up showing outlet as child proceeds to stick it into the outlet. (Dissolve)

23. Medium shot showing the child as he completes the operation and receives a shock. He falls back from the plug on the floor. (Dissolve)

24. Mother rushes from her chair and picks up the boy's head from the floor as she looks around to see what really happened. (Dissolve)

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Title: Safety at Home (Continued)

25. Close-up showing the plug and burned wire clamp. Move to boy's face as his eyes open and he looks around with surprise. (Dissolve)

26. Long shot showing the child getting up on the floor in a sitting position smiling with his mother. (Dissolve)

27. Mother is shown explaining the danger to him as she shows him the plug and wire. She then puts her arms around him as they both smile at each other. (Fade out)

28. Re-show scenes 8, 11, 14, and 21 as review. (Fade to end)

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Number IV
Title: Foods Keep us Healthy

Scenes

1. Long shot of classroom showing class in progress with teacher and students.

2. Students are shown with notebooks open as the camera moves to the teacher who is at the bulletin board showing some pictures.

3. Close-up of pictures on the board as teacher asks questions about the pictures and students answer them. (Dissolve to long shot)

4. Teacher is shown at the bulletin board and as she leaves the board to move toward her desk.

5. Camera dollies in toward the teacher as she reaches her desk and picks up card with menus on them.

6. Close up of each card as the teacher shows them and explains them. (Keep camera on cards)

7. Dissolve to scene of classroom with one student shown to be very alert. He is sitting up and energetic looking, and another one near him showing signs of lack of energy. He is shown slumped down in the seat, etc., as camera moves to a close-up of the two children. (Dissolve)

8. Medium shot as teacher is shown moving toward two posters as camera moves in close and shows the posters of enegertic child with balanced meal on his tray and energiless child with unbalanced meal on his tray.

9. Camera moves away to long shot as teacher looks toward clock that shows 12 noon. Children are shown leaving the room with the energetic child being the leader and the energiless child being the last as he moves slowly. (Fade out)

LUNCHROOM PART II

10. Fade in
Long shot of lunchroom showing children in line eating. (Dissolve)

11. Medium show showing the two children in line with one leaning on wall to support self and other standing upright. (Dissolve)

12. Medium close shot showing two children as they get their trays of food. Both get balanced meals.

13. Children are seen going to table as they start eating.

*Spontaneous narration provide by "film teacher" after careful study of film action and subject content.

Title: Foods Keep us Healthy (Continued)

Scenes

14. Dissolve into close-up shot showing where child I ate all his food and child II ate the sweets and just a bit of the other foods as they both leave the table with camera showing trays and food left. (Fade out)

15. Children are shown on the playground as child II plays a short time and he is soon tired and sitting down while the other child still plays. (Fade out)

CLASSROOM PART III

16. Long shot shows children entering classroom with teacher preparing the flannel board in the front of the classroom. (Dissolve)

17. Medium shot showing the teacher as she gives example of a balanced diet to children of flannel board.

18. Close-up of pictures on board as camera moves to a medium shot and dissolves.

19. Children are shown setting up food patterns by adding one food picture at a time with children responses as child does right or wrong.

20. Review of scenes 3, 5, 7, 8, 12, 14, 15.

21. LONG SHOT OF CLASSROOM AS CHILDREN ARE SHOWN LEAVING FOR HOME. (Fade)

End.

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Number V
Title: Cleanliness

Scenes

1. Long shot of classroom as pupils are seen entering room before class begins.

2. Dissolve to medium shot as children are seen inspecting themselves before the mirror and getting help from each other.

3. Dollie up to close-up to show some wrongs and their being corrected giving time between the shots to make the points clear. (Dissolve)

4. Pupil is seen rushing into the room with his cap on his head and collar open, etc. Another pupil meets him and stops him and helps him to tidy up. He is then carried to mirror to show him how he looks afterwards. (Camera picks up the action at the door and follows it all the way.) (Fade out)

5. Long shot of classroom as children are seen taking seats with teacher at the front of room.

6. Medium shot of teacher at the desk standing (as in past scene). She moves to charts on brushing of teeth as camera moves in for close-up of the chart on brushing teeth. (Dissolve)

7. Medium shot shows a demonstration on how to brush the teeth as we move in for a close-up to show the movements, etc. (Dissolve)

8. Camera then shows several charts with the first being a child smiling with pretty teeth and moving to the other. (Dissolve)

9. Medium shot showing the beginning of a demonstration on how to wash our hands. Close-up shot showing pan, water, soap, and towel. Scene follows with a medium close shot showing the wrong way to wash using water only no soap and drying on towel that shows dirty hand prints. (Dissolve)

10. The same scene is shown with the right way demonstrated by another pupil using soap, cleaning nails, proper motion and towel shown to be clean when used. (Fade out)

11. Flash scenes of wrong and right

    a. Hair not combed and combed hair.
    b. Shoes not shined and shined shoes.
    c. Face not clean and clean face.
    d. Others.

End

*Spontaneous narration provide by "film teacher" after careful study action and subject content.

Number VI
Title: Good Posture

Scenes

1. Long shot of classroom showing class before teacher comes in. Camera moves in on several individual children who show various degrees of good and poor sitting posture....camera moves forward in classroom and catches displays, etc., and teacher as she enters room carrying several posters, etc. (Fade)

2. Close up of one of several posters being put up by teacher. Camera moves back to pick up teacher and all posters as teacher begins to talk about the posters and addresses the class. Camera shows each poster as teacher talks about it to class.

3. Teacher is shown calling on several children (individually) to demonstrate correct sitting posture. Camera picks up each child as he or she moves thru several efforts to attain good posture. Teacher is shown walking to and helping a child as she talks.

4. One boy is asked to demonstrate and test children on "good or poor" posture. Camera shows him as part of class and then moves in for close-up as he goes thru several "wrong and right" examples in order to test the class.

5. Teacher points to several posters on standing posture and asks a girl to come up to display board and point to the best example of good posture. The girl makes a poor choice and is corrected by the class.

6. Teacher asks for demonstrations volunteers and two children come forward. Each child makes obvious errors.....moves near the chart on good posture and corrects himself.

7. One child is asked to review the posters on sitting posture. Child comes to front of class and (with back to camera) reviews all posters on sitting posture. (This is done slowly so as to permit class to agree or disagree with statements of reviewer.)

8. Another child does same review with postures on standing.

9. Last reviewer seen leaving front of class coming to his seat. Teacher moves unto camera for final words about the unit. The film ends as the camera moves from teacher to slowly scan the children individually in their seats. All in good posture except one who appears to "feel the camera on him" and makes a quick, correct adjustment.

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

Number VII
Title: Courtesy and Manners

Scenes

1. Long shot of classroom with teacher in front of room near desk as pupils are arriving for school. Camera moves to medium shot as pupil comes into the room with a large amount of books and other school materials. She is given help by another pupil as soon as she enters the door before some of the things fall. Pupil smiles and thanks the pupil for the help.

2. Same scene continues as a pupil with a similar amount of things almost makes it to a chair and some of her things fall. Before she can pick them up, several pupils walk over them before one stops to give her help and picks them up for her. (Fade out)

3. Fade in
Medium shot of pupils working at a table during the art period. Paints and other materials are shown on the table as pupils work.

4. Above scene continues as a pupil is shown reaching over and grabbing another child's paint without asking for it. The two pupils pull until the paints are wasted all over the table. The bully is shown being taken from the table. (Dissolve)

5. Medium shot shows another pupil asking a pupil to use her paints as the pupil smiles and passes it to him. (Fade out)

6. Fade in
Long shot shows teacher moving toward display board and placing board at an angle where all can see it as she prepares to display pictures of examples of courtesy and manners.

7. Camera dollies into a close-up of pictures as teacher explains the pictures off camera. Dollie back to medium shot of teacher and dissolve.

8. Medium long shot of teacher and pupils setting up a table for demonstration in table manners. Four children are seen taking seats at the table as scene dissolves.

9. Medium shot of children at table as camera dollies in to close-up of the actions demonstrated in the scenes.

10. One pupil playing with silver and using plates for drums, etc. Child across the table shows the right way to act and is example of the right way.

11. Camera moves down table to show two other children who will show contrasting actions of the right and wrong way to serve food as one is seen reaching over the other to pick up food as he is reminded by the person near him who corrects him and he does the act right.

Title: Courtesy and Manners (Continued)

Scenes

12. Pupil is seen having received a dish of food and piles up the food on his plate as we see pupil near him get regular servings of food.

13. Review scenes are flashed right and wrong in scenes shown above.

*Spontaneous narration provided by "film teacher" after careful study of film action and subject content.

APPENDIX D

December 7, 1959

Mr. W. W. Ward, Superintendent
Ouachita Parish Schools
Monroe, Louisiana

Dear Mr. Ward:

As a result of a grant from the U. S. Office of Education, supplemented by State funds, Grambling College is engaged in a 15 month study of teaching media for use with mentally retarded children in Louisiana. This letter is a request for permission to include in our study any Negro children in Ouachita Parish who are or will be soon enrolled in special classes for the mentally retarded.

The only involvement of the children and teacher will be that resulting from an individual intelligence test administered to the suspected retarded children, and a pretest and post-test of children in special classes who have been exposed to certain especially constructed teaching films over a period of three weeks. The teachers will use the films; we will administer the tests. Instruction sheets will be provided the teachers and the project will involve no more than approximately one half hour per school day over a three school-week period.

We sincerely hope that we may include the children of Ouachita Parish in our experimental population.

Very sincerely yours,

Lamore J. Carter
Director of Special Education and
Project Coordinator

LJC/te

Special Education Research Project
Grambling College
Grambling, Louisiana

Dear _____:

Thank you again for expressing desire to cooperate with us during the forthcoming field phase of our research project relative to teaching media for mentally retarded children. Yours is one of sixteen schools involved in the project.

Now, in order to group the schools (special classes in the various schools) according to number of retardates, etc., we must know how many children are in each class and the age and sex of each child. Please use the enclosed form and self-addressed envelope to provide us with this information. The teacher of the special class is asked to sign the form.

Thank you, fellow researcher.

Very sincerely yours,

Lamore J. Carter
Director of Special Education
and Research
Grambling College

March 8, 1960

Dear

We write often because we feel the need to have you know of any slight change of plans and of the general nature of problems associated with such a big project.

Your special class has been designated as _____ _____ in our project. The enclosed materials will explain what you should do as a part of the project. Please adhere to the instructions as much as you can without encountering administrative disapproval. As your principal has agreed to cooperate, all should go well.

The film are being processed by a big firm in Dallas, Texas. Thus, it may well be a few days later than Monday, March, 16th, when they are returned to us. However, the U. S. Office of Education has asked us to complete the project this school year. Therefore, we shall endeavor to do just that. If your class is an experimental group (one which will be asked to show the films on Health and Safety instead of just teach a unit by the same name), your part of the project begins the same day that you receive some film.

Thank you for your understanding and cooperation.

Very truly yours,

Lamore J. Carter

Director of Special Education Research

J. L. JONES ELEMENTARY SCHOOL
Box 530
Minden, Louisiana

December 14, 1959

Dr. Lamore J. Carter
Project Coordinator
Grambling College
Grambling, Louisiana

Dear Dr. Carter:

In reply to your letter to Mr. Pitcher, dated December 7, we are glad to know that the research project which emanated at Grambling College last year is well underway this session, and you are ready to begin the follow-up study in our school next semester.

It is a pleasure to extend to you and your team our approval and cooperation in the follow-up work you are going to do with our students who maybe in need of special help. Our facilities are at your disposal, and we stand ready to aid in any way we can to make your work a pleasure.

We are sure the research project will continue to be both interesting and profitable to our students and teachers.

Sincerely yours,

Eddie L. Heard (s)

Eddie L. Heard, Principal

Approved By:

J. E. Pitcher (s)

EAST BATON ROUGE PARISH SCHOOL BOARD
Office of
Superintendent
P. O. Box 2950
Baton Rouge 2, Louisiana

December 16, 1959

Dr. Lamore J. Carter
Director of Special Education
Grambling College
Grambling, Louisiana

Dear Dr. Carter:

We were glad to be of service to you last year. It will be our pleasure to have you continue working with our classes through the completion of the project.

Sincerely,

LeeRoy D. Campo (s)

LeeRoy D. Campo
Supervisor of Special Education

LDC:pab

cc: Dr. John D. Greene
Director of Instruction

October 5, 1960

Mr. Doyle Arnold
Supervisor of Special Education - Caddo Parish
501 Court House
Shreveport, Louisiana

Dear Mrs. Arnold:

This is a request for assistance in acquiring either the exact I. Q. scores (or a classification of "high" or "low" grade educable) of the thirty-five children at Milam Street Exceptional School. You will recall that you granted us permission to utilize the Milam Street School in our State wide research project relative to educational media for mentally retarded children.

The research project terminated as of October 1, 1960. However, in order to give the intended treatment to the fine date collected, we must be able to classify the children as either "high grade educable" or "low grade educable" in accordance with mental age. Thus, we must have the intelligence test scores. Please clear this for us as Mrs. Jacobs is obliged to follow general policy of the Caddo Parish School Board.

Thank you for your assistance.

Sincerely yours,

Lamore J. Carter
Director of Special Education

LJC/te

cc: Mrs. Verna L. Jacobs

BIBLIOGRAPHY

1. Allen, W. H., "Research on Film Use: Student Participation," Audio-Visual Communication Review. 5:433-50, (Spring, 1957).

2. Arnspiger, V. C., "Measuring the Effectiveness of Sound Pictures as Teaching Aids," Contributions to Education. No. 565 (1933) p. 156.

3. Carpenter, C. R., "Psychological Concept and Audio-Visual Instruction," Audio-Visual Communication Review. 5:361-69 (Winter, 1957).

4. Carter, Lamore J., "Interrelationships Among Learning, Rate of Acquisition and Length of Task," Doctor's Thesis. State University of Iowa, 1958.

5. Carter, L. J., Roy B. Moss, and Mamie T. Wilson, A Picture Test on Health and Safety. (U. S. O. E. Grant No. 716020.09) Grambling College, Grambling, Louisiana, (1959).

6. Comrey, A. L., "Mental Test and the Logic of Measurement," Education of Psychological Measurement. 1951. 11, 323-334.

7. Consitt, Francis, The Value of Film in History Teaching. London: G. and Sons, Ltd. 1931.

8. Cruichshank, William N., (Ed.), Psychology of Exceptional Children. Englewood Cliffs, New Jersey: Prentice-Hall, 1955. Chapter IX.

9. Davis, Helen C., "Specific Values of Educational Films Used as Supplementary Aids," Doctor's Thesis. University of Chicago, 1932.

10. Freeman, F. N., and Carolyn Hoefer, "An Experimental Study of the Influence of Motion-picture Films on Behavior," Journal of Educational Psychology. 22:411-25, (1931).

11. Freeman, F. N., Lena A. Shaw, and D. E. Walker, "The Use of a Motion Picture Film to Teach Position and Pen-Holding in Handwriting," Visual Education. University of Chicago Press, 1924. pp. 282-309.

12. Garrison, Ivan, The Psychology of Exceptional Children. New York: Ronald Press, 1950. Part III.

13. Hall, W. J., "A Study of Three Methods of Teaching Science with Classroom Films," School Science and Mathematics. 36:986-70, (1933).

14. Hansen, J. E., "The Effect of Educational Motion Pictures Upon the Retention of Informational Learning," Journal of Experimental Education. 2:1-4, (1944).

15. Hansen, J. E., "The Verbal Accompaniment of the Educational Film - The Recorded Voice Versus the Voice of the Classroom Teacher," Journal of Experimental Education, 5:16, (1936).

16. Harby, S. F., "Comparison of Mental Practice and Physical Practice in the Learning of Physical Skills," Human Engineering Report. (SDC 269-7-27), Instructional Island, New York: Special Devices Center, (June, 1952), p. 11.

17. Hirsch, Richard S., "The Effects of Knowledge of Test Results on Learning of Meaningful Material," Human Engineering Report. (SDC 269-7-30), Instrucional Film Research Program, Pennsylvania State College, Port Washington, Long Island, N. Y.: Special Devices Center, (September, 1952).

18. Hoban, C. F., Jr., and Edward B. Van Ormer, "Instructional Film Research," 1918-1950. Technical Report. (SDC 269-7-19), Instructional Film Research Program, Pennsylvania State College, Port Washington, Long Island, N. Y.: Special Devices Center, (September, 1952).

19. Hoban, C. F., Jr., Focus on Learning. American Council on Education, 1942.

20. Hoefer, Carolyn, and Edna Keith, "An Experimental Comparison of the Methods of Oral and Film Instruction in the Field of Health Education," Visual Education. University of Chicago Press: 1924, pp. 346-376.

21. Hovland, Carl I., Arthur A. Lumsdaine, and Fred D. Sheffield, Experiments on Mass Communication. Princeton, N. Y.: Princeton University Press, (1959), p. 345.

22. Hutt, Max L., and Robert G. Gibby, The Mentally Retarded Child. Boston: Allyn and Bacon, 1958. p. 334

23. Johnson, Palmer O., Statistical Methods in Research. New York: Prentice Hall, Inc., 1946. Chapter IX.

24. Kendler, Tracey S., John O. Cook, and Howard H. Kendler, "An Investigation of the Interacting Effects of Repetition and Audience Participation on Learning From Training Film," The American Psychologist. (Abstract 8:378-79), (August, 1953).

25. Kirk, Samuel A., and G. O. Johnson, Educating the Retarded Child. New York, New York: Houghton Mifflin Company, 1951. p. 434.

26. Knowlton, D. C., and J. W. Tilton, Motion Pictures in History Teaching. Yale University Press, 1929. p. 182.

27. Kurtz, Albert K., Walter, Jeannette S., and Brenner, Henry, "The Effects of Inserted Questions and Statements on Film Learning," Technical Report. (SDC 269-7-16), Instructional Film Research Program, Pennsylvania State College, Port Washington, Long Island, New York: Special Devices Center, (September, 1950). p. 15.

28. Kurtz, Kenneth H., and Carl I. Hovland, "The Effect of Verbalization During Observation of Stimulus Objects Upon Accuracy of Recognition and Recall," Journal of Experimental Psychology. 45:157-64, March, 1953.

29. Larson, L. C., "Trends in Audio-Visual Instruction," Educational Screen. 22:197-99, (1943).

30. McGeoch, John A., and Arthur L. Iron, The Psychology of Human Learning. New York: Longmans, Green and Company, 1952.

31. Michael, Donald N., "Some Factors Influencing the Effects of Audience Participation on Learning from a Factual Film," HRRL Memo Report. (No. 13a, Revised Report). Washington, D. C.: U. S. Air Force, Human Resources Research Laboratories, Headquarters Command, Bolling Air Force Base, (December, 1951), p. 46.

32. Patterson, Pierce E., "Teaching the Operating of a Motion Picture Projector by the Use of a Sound Film and Visualization," Master's Thesis. California: San Diego State College, (1953). Typewritten.

33. Roshal, Sol M., "Effects of Learner Representation in Film-Mediated Perceptual-Motor Learning," Technical Report SDC 269-7-5. Instructional Film Research Program. Pennsylvania State College. Port Washington, Long Island, New York: Special Devices Center, (December, 1949), p. 38.

34. Roulon, P. J., "The Sound Motion Picture in Science Teaching," Harvard Studies in Education. (Vol 20), Harvard University Press, (1938), p. 230.

35. Slattery, Sister M. Jamesetta, An Appraisal of the Effectiveness of Selected Instructional Sound Motion Pictures and Silent Filmstrips in Elementary School Instruction. Washington, D. C.: Catholic University of America Press, 1953. p. 67.

36. Stroud, J. B., Psychology in Human Learning. New York: Longmans, Green and Company, 1956.

37. Tredgold, A. F., A Text-Book of Mental Deficiency. London: Bailliere, Tyndall and Cox, 1952.

38. Underwood, B. J., "Speed of Learning and Amount Retained: A Consideration of Methodology," Psychological Bulletin. LI. No. 30 (1954), pp 276-282.

39. Wittich, W. A., and J. G. Fowlkes, Audio-Visual Paths to Learning. Harper, 1946, p. 135.

40. Yale University Motion Picture Research Project, "Do 'Motivation' and 'Participation' Questions Increase Learning?" Educational Screen. 26:256-59, 274, 283. (May, 1947).